

Remarks

Claims 1-10 were pending in this Application. Claims 1, 2, 5 and 9 have been amended. Claims 3, 4, 7 and 8 have been canceled. No claims have been added. Thus Claims 1, 2, 5, 6, 9 and 10 are subject to continued examination.

Anticipation Rejections

Claim 1 stands rejected under 35 U.S.C. 102(b) as being anticipated by Harris et al. (US 5,886,091) taken in view of the evidence in Krutak et al. (US 5,194,463). Continued rejection on this basis is respectfully traversed and reconsideration is requested.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim (MPEP § 2131).

Applicant has incorporated features from claims 3 and 4 into claim 1. In view of such amendments, Applicant respectfully submits that Harris et al. incorporating the teachings of Krutak et al. does not satisfy the standard for anticipation with respect to claim 1 as now presented. In particular, as best understood, neither Harris et al. nor Krutak et al. disclose an ink solution comprising a polymeric colorant toner component exhibiting a  $\lambda_{max}$  absorption measurement between about 550 and 610 nm and comprising a nonionic

chromophore component, wherein the polymeric colorant toner component comprises polyoxyalkylene chains thereon and wherein the polyoxyalkylene chains comprise at least a majority of C<sub>3</sub> or higher alkylene oxide monomers and wherein the ink solution further includes at least one black coloring component. Accordingly, since Harris/Krutac fails to disclose the limitations as claimed by Applicant in amended claim 1, Applicant respectfully requests that the rejection of claim 1 based on anticipation by Harris/Krutac be withdrawn.

Claims 1-4 and 7-8 stand rejected under 35 U.S.C. 102(b) as being anticipated by Harris et al. (US 5,886,091) taken in view of the evidence in Cross et al. (US 4,284,729). Claims 3, 4, 7 and 8 have been cancelled thereby obviating the outstanding rejection of such claims. Continued rejection of remaining claims 1 and 2 as being anticipated by Harris et al. is respectfully traversed and reconsideration is requested.

As regards claim 1 and the claims depending therefrom, Applicant respectfully submits that even incorporating the evidence of Cross et al., Harris et al. fails to disclose an ink solution comprising a polymeric colorant toner component exhibiting a  $\lambda_{max}$  absorption measurement between about 550 and 610 nm and comprising a nonionic chromophore component, wherein the polymeric colorant toner component comprises polyoxyalkylene chains thereon and wherein the polyoxyalkylene chains comprise at least a majority of C<sub>3</sub> or higher alkylene oxide monomers and wherein the ink solution further includes at least one black coloring component.

The Office Action takes the position that the claimed maximum absorption values are inherent in the colorants disclosed in Harris. The basis for the position of inherency is the assertion by the Office Action that the colorants disclosed in Harris et al. (through reference to Cross et al.) are "identical" to those presently claimed and it is therefore clear that the disclosed colorants would inherently exhibit maximum absorption at the same wavelengths as presently claimed. Applicant respectfully submits that the cited references to Harris et al. and Cross et al. lack sufficient detail to support the position of anticipation since Harris et al. (through reference to Cross et al.) discloses only a broad genus of colorants while the present claims recite particular species of colorant toners having specific maximum absorption values.

As best understood, Harris et al. discloses generally that colorants suitable for use in the colored polyurethane oligomers of that invention may include those having a nucleophilic group bonded to a chromophore by a polyoxyalkylene group as disclosed in Cross et al.. (Col. 4, lines 21-24.) Cross, in turn, appears to disclose generalized classes of such colorants but provides no indication of formulations or treatments yielding particular absorption values. The Office Action appears to rely on the theory that any colorant incorporating a nucleophilic group bonded to a chromophore by a polyoxyalkylene group and incorporating an azo or anthraquinone radical will necessarily have the recited maximum absorption values of between about 550 and 610 nm. Applicants respectfully submit that there is simply no support for such a broad generalization since absorption characteristics of a colorant

are dependent upon the overall molecule including various substituents present to impart a desired coloration.

Even if Cross et al. is viewed as disclosing a broad genus of colorants with the same general formula used in the instant application, as best understood there is no teaching of practices to yield species having the recited maximum absorption values. At best, Cross et al. appears to provide generalized formulas having an extensive number of variations that would then have to be manipulated to yield particular colorants having the claimed maximum absorption values. The need for particular selection and further manipulation to achieve the recited optimum characteristics is inconsistent with a position of inherency. Applicant notes that MPEP § 2112 clearly states that the fact that a certain result or characteristic may occur or be present is not sufficient to establish the inherency of that result or characteristic. To establish inherency, extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. The mere fact that a thing may result from a given set of circumstances is not sufficient. In the present instance one would have to engage in substantial optimization efforts to isolate limited species from the broad genus of colorants disclosed in Cross et al. thereby weighing against a determination of inherency.

It is axiomatic that an anticipation rejection must be based on the teachings of a single prior art reference. Moreover, the teachings of that reference must provide as much detail as is contained in the claim. See, MPEP §2131. As outlined above, in light of the very generalized disclosure in Cross et al. it is respectfully submitted

that the recited details regarding maximum absorption values are not disclosed with sufficient detail in Harris et al. (incorporating Cross et al.) to support a continued anticipation rejection. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the outstanding anticipation rejection of independent claim 1 and remaining claims.

As regards claim 2, Applicant reiterates the arguments set forth above with regard to claim 1. Applicant also notes that the species of toner components as recited is further limited to those exhibiting a  $\lambda_{max}$  absorption measurement between about 560 and 580 nm. It is respectfully submitted that such a restricted species would be obtainable from the disclosure in Harris et al. only through further optimization efforts in addition to the already substantial optimization efforts required to isolate the limited species recited in claim 1. Accordingly, Applicant respectfully submits that the position of inherency with regard to claim 2 should not be maintained.

Claims 1-10 stand rejected under 35 U.S.C. 102(b) as being anticipated by Batlaw et al. (US 5,429,841). Claims 3, 4, 7 and 8 have been cancelled thereby obviating continued rejection. As regards the remaining claims, Applicant respectfully submits that the standard of anticipation is not met since all recited elements of the claims are not present in the claims as now presented.

Applicant respectfully submits that Batlaw fails to disclose an anhydrous black gravure ink solution as recited in claims 1 and 2 as now presented wherein the ink solution comprises at least one polymeric colorant toner component. As best understood, Batlaw discloses an ink composition for gravure printing with a

polyoxyalkylene substituted colorant and a vehicle which is a water-in-oil emulsion of a water immiscible organic phase and an aqueous phase (Abstract). Upon review of the cited reference it appears that only in comparative Examples 1 and 4 does Batlaw disclose an anhydrous ink solution. However, as best understood, these examples contain only pigment and no polymeric colorant. Accordingly, since Batlaw fails to disclose the limitations in as complete detail as is contained in the claims as presently presented, Applicant respectfully requests that all outstanding rejections of claims based on anticipation by Batlaw be withdrawn.

Obviousness Rejections

Claims 1-10 stand rejected under 35 U.S.C 103(c) as being unpatentable over Harris et al. (US 5,886,091) in view of Baumgartner et al. (US 4,812,141). Claims 3, 4, 7 and 8 have been cancelled thereby obviating the outstanding rejection of such claims. Continued rejection of remaining independent claims 1 and 2 and claims depending therefrom as being obvious over Harris et al. in view of Baumgartner et al. is respectfully traversed and reconsideration is requested.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art (MPEP § 2143.03). Applicant respectfully submits that neither of the cited references teaches or suggests a black gravure ink solution comprising at least one polymeric colorant toner component exhibiting a  $\lambda_{max}$  absorption measurement between about 550 and 610 nm wherein the toner component comprises a nonionic chromophore

component and wherein the toner component comprises polyoxyalkylene chains thereon comprising at least a majority of C<sub>3</sub> or higher alkylene oxide monomers. The ink solution further comprises at least one black coloring component in addition to the polymeric colorant toner component.

The Office Action takes the position that the colorants of Baumgartner would intrinsically exhibit maximum absorption at the same wavelength as presently claimed. As presented above with respect to the disclosures in Cross et al, Applicant respectfully submits that the disclosure of broad families of colorants in Baumgartner et al. does not provide the requisite teaching of colorant toner species having the maximum absorption wavelengths recited in the instant claims. Applicant respectfully submits that in order for one to isolate specific colorant toner species having the specified maximum absorption characteristics as recited in the in the claims would require substantial optimization efforts thereby weighing against a conclusion of inherency.

In addition to the fact that the colorant toner species having the specified maximum absorption characteristics are not inherently disclosed by the cited art, Applicant respectfully submits that as best understood the cited art offers no guide as to why one would seek to use toner species having the specifically claimed maximum absorption characteristics rather than other species of the same general formula having maximum absorption characteristics outside the claimed ranges. The instant claims (particularly claim 2) recite a specific relatively narrow range of maximum absorption levels for the colorant toner component. As best understood, there would be no motivation to use toner colorants with these particular levels

rather than other levels. Absent some suggestion or motivation for selecting colorant toners with these particular characteristics from the vast number available, it is respectfully submitted that the outstanding obviousness rejection can only be based on the impermissible rational of what one of skill in the art could have done. Moreover, it is well established that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. See, MPEP §2143.01. In light of the fact that the cited combination of references provides no teaching or suggestion for selecting colorant toners with the claimed absorption maxima, Applicant respectfully submits that the obviousness rejection should not be maintained.

Conclusion:

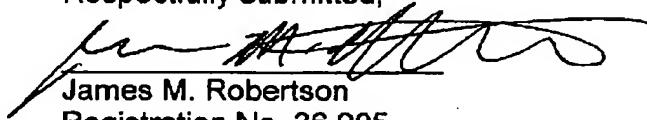
For the reasons set forth above, it is respectfully submitted that all claims now stand in condition for allowance.

Should any issues remain after consideration of this Amendment and accompanying Remarks, the Examiner is invited and encouraged to telephone the undersigned in the hope that any such issue may be promptly and satisfactorily resolved.

A One (1) Month Petition for Extension of Time accompanies this paper. To any extent required for acceptance of this paper, an additional extension is hereby requested.

In the event that there are additional fees associated with the submission of these papers (including extension of time fees), authorization is hereby provided to withdraw such fees from Deposit Account No. 50-1424.

Respectfully submitted,



James M. Robertson  
Registration No. 36,905  
(864) 583-0030